

University Search Engine

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Abstract

In this paper, I present a new search engine system to find the home page of any university. This system ("*University Search Engine*") depends on building a database that has information which it used to access the home page of any university by entering a keyword. This keyword is used to generate a hyperlink for this university . In fact, most students use the Internet for accessing and using the webpages; therefore, the target of this research is to build a new search engine that makes the students access the home pages of the universities easily. When testing the system ("*University Search Engine*") it succeeds in accessing the Iraqi universities (kufa university, Baghdad university...etc) and give the exact home pages for these universities. It is also tested for foreign universities (University Saine Malaysia, University Collage Lincoln ... etc), and it succeeds in giving the exact home pages for these universities. I build my system ("*University Search Engine*") under visual basic 6 language (VB6) and Microsoft Access 2003.

1- Introduction:-

With the huge amount of information on the Internet, searching and indexing software applications are crucial for locating specific resources and for organizing information[1]. These software applications are called search engines, which search for information on web pages.

A web page is a document in Hypertext Markup Language (HTML) format that provides some, hopefully useful, information to anyone accessing the page from his or her computer via a browser.[2]

A search engine it is a tool which enables users to find information on the World Wide Web, which is merely part of the internet , and it is a powerful software application used by web to provide search services. Google is an example of a popular search engine.[3]

The search engines consist of three parts:

(1) a database of web documents, (2) a search engine operating on that database, and (3) a series of programs that determine how search results are displayed .[4]

Search engines maintain massive databases of websites compiled by programs called *crawlers*, which crawler across the web to collect information from the various websites. This information is then indexed and catalogued into the database by the search engine. The search engine retrieves the relevant information for the user when the key in the phrase on which information is sought.[5]

The search results are usually presented in a list and are commonly called hits. The information in web pages consists of images, texts and other types of files.[6]

2- The Aim of Research:-

When anyone want to find the website of any university he uses Google search engine , yahoo search engine or any other search engine, but indeed the results are not only the website of the desired university.

The results also contain subjects that are related to this university, and maybe the results are not related to what the user want. Therefore, my system (“ *University Search Engine* “) solves this problem by finding exactly the web page for the university by using VB6 and Microsoft Access 2003.

I intend in this work to build a proposed technique that access the web of the university depending on the name of the university as a (keyword), and search of this keyword in the database of the system, and the result will be appeared in the browser of my system .

The system does not only make indexing for the universities such as most search engine that searching of the universities(Google university search engine for example), but *university search engine system* will depend on the database that helps to generate the link that will be connected to the web of the specific university depending on keywords that the user entered.

3- System Block Diagram:-

The system can be illustrated by the following block diagram in the figure(1):

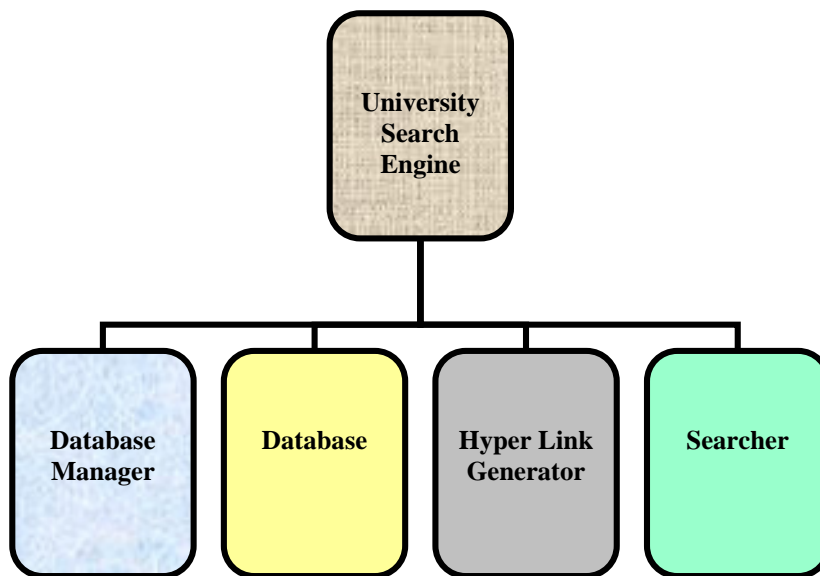


Figure (1) block diagram of the system

3-1 Database Manager:-

This subpart of the system is used to manage the universities in database, modify the database or add new records to the database, for example in my system when you want to add new university to the database, it will be added as new record to the database.

3-2 Database:-

The database of the system is implemented in MS ACCESS 2003; it contains one table that contains the information.

3-3 Hyper Link Generator:

This part of the system will generate links, this links are populated as HTML web page in my browser that is found from the database, and when click on this link, the browser will open the home page of the university.

3-4 Searcher:-

The searcher is used when the keyword is not in the database of my system. It will generate link to connect to the famous search engine "Google". When the user click this link, he will get the results.

4- Design the University Search Engine System :-

Any search engine needs the keywords that are specified by the user and entering it to the search engine.

But in general this keywords maybe do not give the exact results that user wants, because the search engine searches for exact keyword in its database. For example, if the user needs to search for the website of the university of kufa, he will write (university of kufa) to the search engine, then the search engine will find many pages that contains the words (university of kufa), the pages that contain the word (kufa) and the pages that contain the word (university).

In my system, I organize the database to find the exact web pages for the universities. By entering the name of the university, the system will assign a keyword to access the university page by searching in the database.

When this keyword will be applied on the database, the *University Search Engine System* will display the information about this university, abbreviation, and the link of the university. When click on this link the system will display the home page of the university on its browser. When the keyword is not found in the database, then the system will be joined with the searcher "Google" to use this keyword to find the results.

Figure (2) illustrates the flowchart for the "*University Search Engine System*".

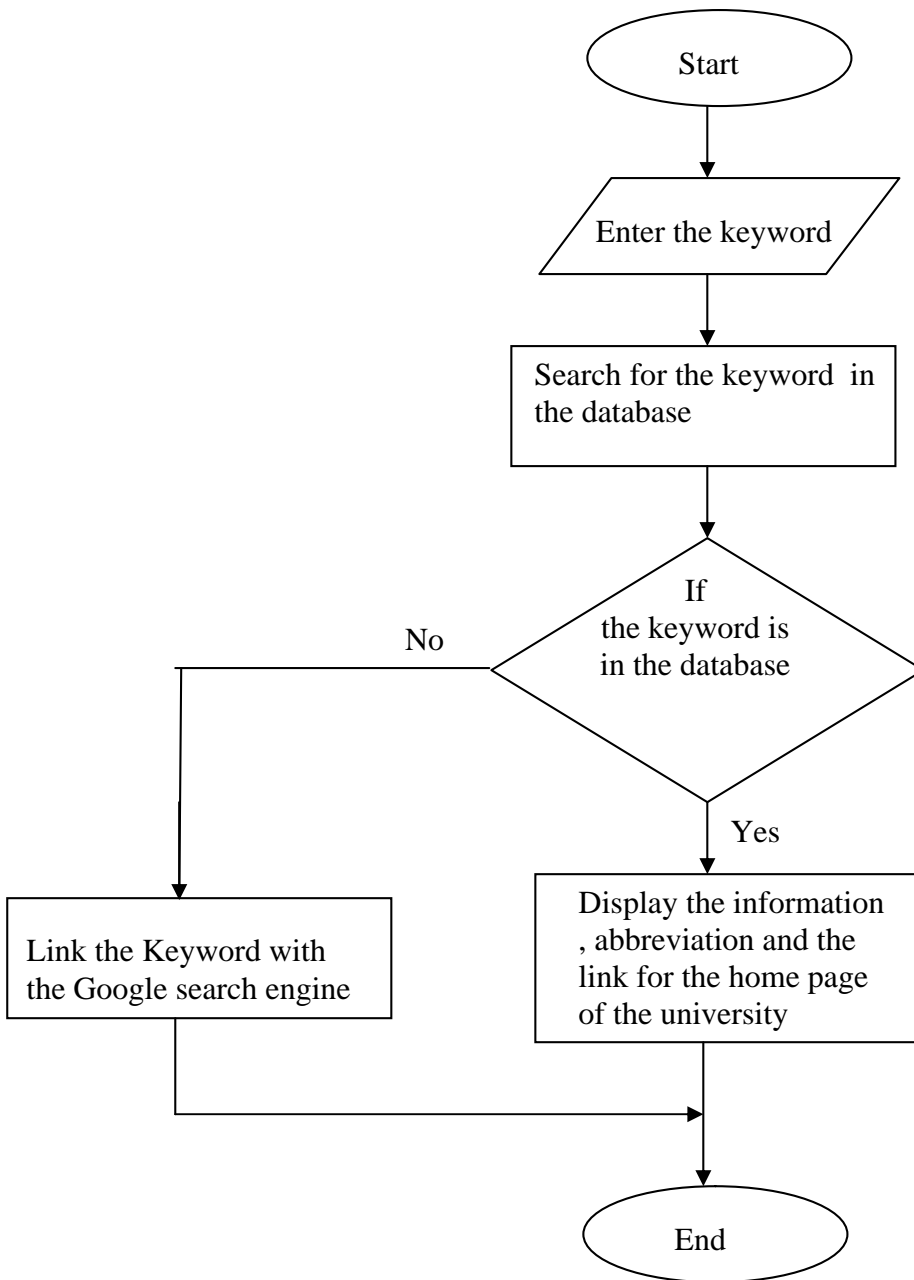


Figure (2) flowchart of the system

5- Implementation of the System :-

This system was build under computer with 2.1 GHz Core2Duo Intel processor. Visual basic 6 (VB6) was used to build the software of the system. The database was built by using the Microsoft Access 2003.

I start by building the database with sample of universities and when the system is tested by entering the keyword (name of university)the system succeeds in accessing the exact web page pf this university, the test bellow illustrates the work of the system.

First test : when entering the name of university and this university is in records of the database, for example (kufa university), then the system will be give the information of this university , abbreviation and the link of the university, figure (3) illustrates the information for kufa university .

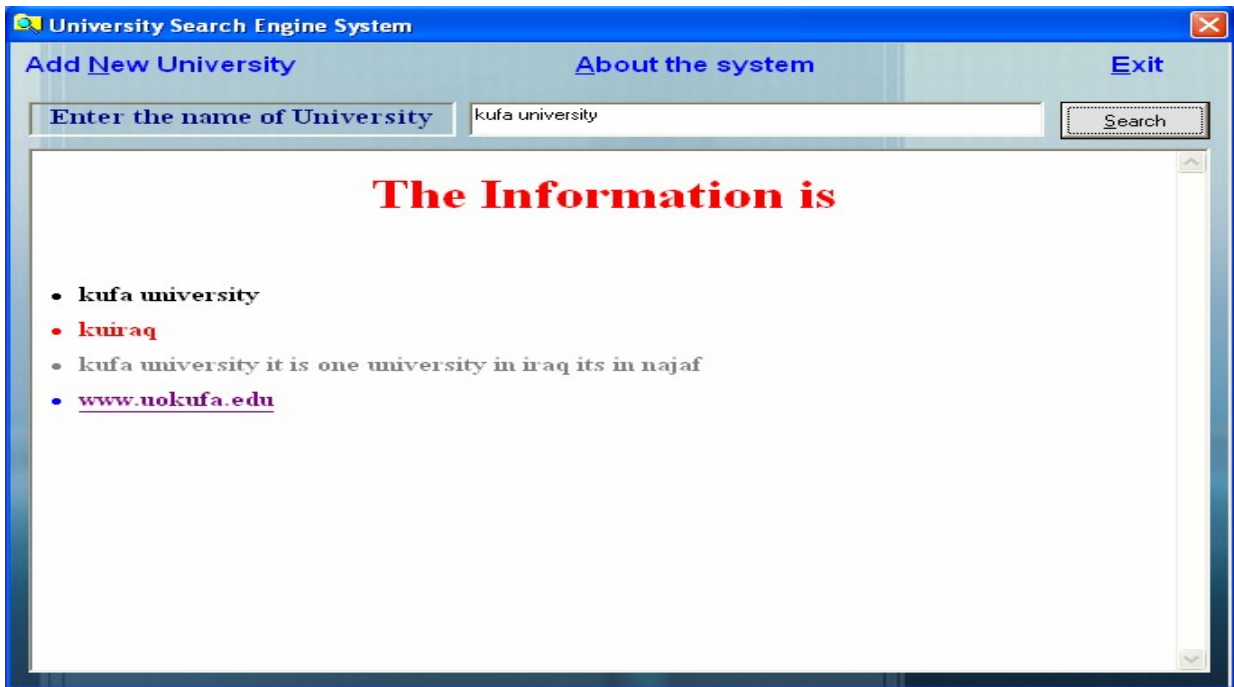


Figure (3) the information of the university

The link that will be use to access the home page of this university, figure (4) illustrates the home page of the university of kufa.



Figure (4) the home page of the university

Second test : when entering the name of a university and this university is not found in the database , then the system will be joined with another search engine (Google search engine) to find the university, figure (5) illustrates how the system joined with the Google to find the (basrah university) .

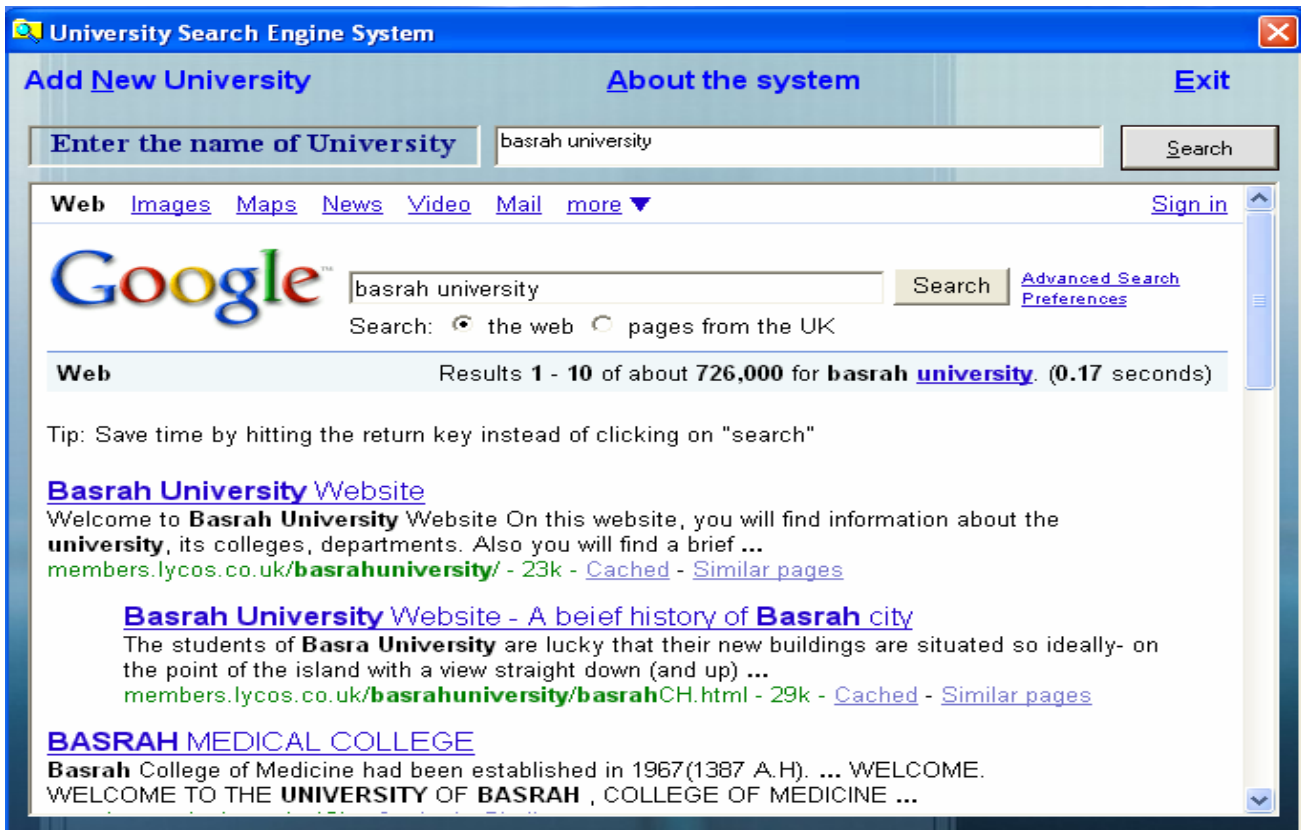


Figure (5) how the system joined with the Google

6- Conclusion :-

The *University Search Engine System* simplified the search operation to find the universities through building a special database for the universities, and use this database to access the exact web page of the university.

From the above tests and by entering the name of university, the system succeeds in accessing the home page of the university.

In fact, by focusing on the figure (5) one can see the difference between my design (*University Search Engine System*) and the Google search engine. *University Search Engine System* gives the exact web page for the university as it is shown in the first test , but the another one (Google) gives all pages that contains (basrah), (university), and (basrah university).

7- Suggestions for future work :-

- 1- Extending the database to include all the establishment of education such as research centers , colleges,... etc.
- 2- Developing the system to search for another things in the same university such as lectures, researches ,articles ,... etc .
- 3- Adding the subject " search engine " as one of materials of study in computer department in the college of education.

References

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محرك بحث عن مواقع الجامعات
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جامعة الكوفة – كلية التربية للبنات – قسم الحاسبات

الملخص

في هذه البحث، قمت بتقديم نظام محرك بحث جديد لإيجاد الصفحة الرئيسية لأي جامعة. هذا النظام (" *University Search Engine System* ") يعتمد على بناء قاعدة بيانات تحتوي على معلومات تُستعمل لدخول الصفحة الرئيسية لأي جامعة بإدخال الكلمة المفتاحية التي تُستعمل لتوليد رابط لهذه الجامعة. في الحقيقة، أكثر الطلاب يستخدمون الإنترنت لدخول واستعمال صفحات الويب؛ لذا، هدف هذا البحث أن يبيّن محرك بحث جديد يجعل الطلاب يدخلون الصفحات الرئيسية للجامعات بسهولة. عند اختبار النظام (" *University Search Engine System* ") للجامعات العراقية (جامعة الكوفة، جامعة بغداد ... الخ) اعطى الصفحات الرئيسية المضبوطة لهذه الجامعات. وعند اختبارها للجامعات الأجنبية (جامعة ماليزيا للعلوم USM ، جامعة لينكولن ... الخ)، نُجِّح في إعطاء الصفحات الرئيسية المضبوطة لهذه الجامعات. بُني النظام باستخدام فيجوال بيسك 6 ومايكروسوفت اكسس 2003.

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